COMMUNITY ACTION DISTRIBUTION OF HOME RELIEF FUNDS 2020–2023

TECHNICAL APPENDIX

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Explanation of SROI

SROI Overview

Social Return on Investment (SROI) measures the social value created by a program or intervention by including social, economic, and environmental impacts in a total measure of social value. In this way, SROI is used to convey—in monetized form—the value of interventions whose outcomes may or may not traditionally be captured by financial metrics. SROI accomplishes this through the use of fiscal proxies, which translate the value of the outcomes under study into the more universal language of money. To develop a fiscal proxy, each outcome is given a quantifiable representation of value, typically conceived of as the dollar value of costs avoided or benefits obtained. The process of selecting outcomes to value and assigning fiscal proxies is driven by stakeholders' views of the relative importance of these outcomes. Materiality in the SROI framework is determined by stakeholder input and determination of impacts important relative to the stakeholder group. Outcomes are evidenced by stakeholder engagement. For this study, the Ohio University research team used fit-for-purpose measures to determine the fiscal proxies for each outcome. Specifically, each fiscal proxy is stakeholder sourced, geographically specific, aligned to industry standards in cost-benefit-analysis measures where appropriate (i.e., value of a volunteer hour as reported by the Independent Sector), and informed by relevant academic literature.

An SROI analysis produces both a total estimate of social value created, and a ratio of the value created per dollar invested in the intervention. An SROI analysis generally includes the following steps:

1. Stakeholders identify the important outcomes they experienced as a result of the program or intervention being studied. In the case of this evaluation, outcomes were identified and prioritized by stakeholders through focus group discussions and surveys.
2. The scale of these outcomes is measured so that they can be valued. For this evaluation, the outcomes were measured using surveys of beneficiaries (to determine the percentage of beneficiaries who achieved each outcome) and a combination of CAA survey, focus groups and case studies.
3. A fiscal proxy is identified to express the value of each outcome in monetary terms. The specific proxies used for this SROI are included in this technical appendix.
4. The fiscal proxy for each outcome is multiplied by the number of people experiencing the outcome.
5. Discounts are applied to the resulting value to account for other influences that may have contributed to the outcome (deadweight), the length of time the outcome persists (duration), the degree to which the outcome decreases over time (drop-off), and the amount of the outcome that was caused by the program (attribution).
6. To calculate the total social value created by an intervention, the social value for all outcomes is combined. To calculate the SROI ratio, the total value is divided by the number of dollars invested in the program.

There is a strong emphasis within the field of SROI on transparency, among other principles.[1] In order to be as transparent as possible, this report includes a detailed explanation of all the proxies used in this report, the research from which they are drawn, the assumptions they include, and the calculations that yielded the final values.

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[1] The eight main principals of SROI are (1) involve stakeholders, (2) understand what changes, (3) value the things that matter, (4) only include what is material, (5) do not over-claim, (6) be transparent, and (7) verify the result, and (8) be responsive. For more information see Social Value International, The Principles of Social Value, https://www.socialvalueint.org/principles

Types of fiscal proxies and discounts used in SROI

Fiscal proxy types [2]

	Technique	Description	Example Stakeholder & Outcome	Example proxy
Cost-based	Replacement costs	Costs required to replace the service provided	Individuals with low incomes receive cost savings benefit from free tax preparation services	Cost of tax accountant to complete same task
	Opportunity costs	Market value of contribution made or given up by those who contribute to activities	Mentors feel increased connection to community while volunteering to help students increase job skills	Average cost per hour of mentors' usual working wage
	Damage costs avoided	Costs incurred as a result of loss of services	A stream benefits from instillation of an innovative technology to remove acid mine drainage from stream water	Cost to city to repair infrastructure damaged from acid mine drainage and restore contaminated drinking water

	Technique	Description	Example Stakeholder & Outcome	Example proxy
Revealed preferences	Fair market value prices of similar goods or services	Cost of similar program or product that reflects costs involved to bring a good/service to market	Student feels increased leadership ability because of an intervention	Fair market value of attending a week-long sleepaway leadership camp for youth
	Effect on production	Value of cause-and-effect relationship in output of a product	Students receive additional credentials as a result of course participation	Average increase in income for persons with credentials
	Travel costs	Amount of time and money people spend for recreation or leisure activity	Elderly persons report improved physical fitness	Cost of club or gym membership for same time period
	Hedonic pricing	Difference in pricing for similar product with different qualities; willingness to pay	Environment experiences the change of cleaner air due to intervention	Difference between property values in areas with clean air and property values in areas with known air pollution

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[2] Adapted from Ricket, Allison. "Valuing Complexity in Education-Community Partnerships: SROI as Measurement Framework for Learning Ecosystems." Doctoral dissertation, Ohio University, 2022.

	Technique	Description	Example Stakeholder & Outcome	Example proxy
Wellbeing	Well-being valuation	Statistical assessment of the relationships between life circumstances, measures of wellbeing, and level of income	Participants report feeling less stressed	Increased income earning potential of persons reporting they are not stressed at work
Stated preferences	Contingent valuation	Self-reported data for willingness to pay for wellbeing change or willingness to accept a loss that wellbeing does not change (process can be used to measure access to services and other outcomes)	Students feels increased leadership ability because of activity	Willingness to pay for increased leadership skills or willingness to accept payment for decreases in ability to lead
Stated preferences	Choice experiments	Alternative product or service options, from which stakeholders choose which they prefer	Participants report feeling less stressed	Choice of cost of stress reducing massage or cost of weekend getaway (stakeholder choice indicates which proxy should be used for valuation)
Benefit transfer	Benefit transfer	Secondary source approach in which value estimates from existing studies are transferred to the current study, with adjustments made for context	Elderly persons report improved physical fitness	Academic research reporting that elderly persons who are active spend a specific dollar amount less on doctor's visits per year

Discounts used in SROI[3]

Discount Type	Explanation
Attribution	Accounts for how much the outcome was caused by other programs, organizations, events, or people; calculated as a percentage (the % caused by the program/organization being analyzed in the SROI)
Deadweight	Measure of the amount of outcome that would have happened even if the activity had not taken place; typically uses benchmarks or comparisons; calculated as a percentage (percentage caused by something other than the activity under study)
Dropoff	Accounts for the extent to which an outcome may be increasingly influenced by other factors over time; calculated for outcomes that last more than one year; calculated as a percentage (% decrease per year)
Duration	The length of time an outcome is estimated to persist
Displacement	Assesses whether the outcomes under study displaced other outcomes; calculated as a percentage (% of outcomes that are double counted because of displacement)

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[3] Drawn from discount explanations in: *A guide to social return on investment*. (2012, January). *SROI Network*. Retrieved from https://socialvalueuk.org/resources/a-guide-to-social-return-on-investment-2012/

SROI Results

SROI Dashboard with low-end estimates

Social Return on Investment Dashboard: Community Action-Distributed Home Relief

Analysis conducted by Ohio University's Voinovich School of Leadership and Public Service on behalf of the Ohio Association of Community Action Agencies

Every **$1** invested in pandemic-related housing and utility assistance generates between **$ 6.73** and **$ 8.68** of social impact

Ohio Association of Community Action Agencies

OHIO UNIVERSITY
Voinovich School of Leadership and Public Service

	Low	High
Program Investments	$ 501,968,910.98	$511,722,355.21
Program and Administrative Costs	$500,541,956.26	$500,541,956.26
Beneficiary inputs	$ 617,829.66	$ 3,089,148.30
Service provider inputs	$ 809,125.07	$ 8,091,250.65

	Low	High
Value Created	$ 3,442,391,768.91	$ 4,359,338,262.10
Community Action Agencies	$ (1,186,645.03)	$ (3,673,418.13)
Beneficiaries	$ 2,544,224,990.30	$ 3,706,946,365.80
Taxpayers	$ 331,708,949.50	$ 647,974,063.78
Service Providers	$ 567,644,474.14	$ 8,091,250.65

Outcomes	Number of Beneficiaries	Inputs - Low	Calculated Value - Low	Calculated Value - High	Ratio-Low	Ratio-High
Community Action Agencies & Staff	24-219	**$48,990,512.78**	**$ (1,186,645.03)**	**$(3,673,418.13)**	**-0.02**	**-0.07**
1. Increased workloads & staff turnover	47 - 235		$ (579,370.15)	$ (2,896,850.77)		
2. New and expanded partnerships	44		$ 157,356.00	$ 524,520.00		
3. Expanded staff	235		$ (630,516.75)	$ (630,516.75)		
4. Secondary trauma	47-235		$ (134,114.12)	$ (670,570.61)		

Outcomes	Number of Beneficiaries	Inputs - Low	Calculated Value - Low	Calculated Value - High	Ratio - Low	Ratio-High
Program Beneficiaries		**$3,089,148.30**	**$ 2,544,224,990.30**	**$ 3,706,946,365.80**	**823.60**	**1199.99**
5. Reduced anxiety	40,256-80,512		$ 12,978,653.56	$ 25,957,307.12		
6. Stabilization--child food insecurity avoided	35,368		$ 2,181,822.92	$ 2,181,822.92		
6.b. Stabilization-adult food insecurity avoided	40,256-80,512		$ 28,745,489.20	$ 57,490,978.41		
7. Stabilization--delayed medical care avoided	40,256-80,512		$ 1,119,536,838.19	$ 2,239,073,676.38		
8. Stabilization--bill delinquency avoided	40,256		$ 1,175,485,183.49	$ 1,175,485,183.49		
9.Time for positive interaction with children	35,425		$ 163,711,111.20	$ 163,711,111.20		
10. Decreased residential mobility	35,425		$ 40,125,497.20	$ 40,125,497.20		
11. Maintained access to childcare	17,417-34,834		$ 1,460,394.55	$ 2,920,789.10		

Outcomes			Calculated Value - Low	Calculated Value - High	Ratio
Taxpayers			**$ 331,708,949.50**	**$ 647,974,063.78**	see total SROI
12. Avoided costs of homeless shelter utilization & COVID mitigation			$ 108,805,002.08	$ 217,610,004.17	
13. Avoided cost of foster care system utilization			$ 53,530,717.50	$ 252,106,405.20	
14. Avoided cost of insufficient childcare			$ 388,909.42	$ 777,818.84	
15. Benefits attained because of improved parent-child interaction			$ 114,819,806.98	$ 114,819,806.98	
16. Avoided costs of foreclosures to local governments			$ 54,164,513.52	$ 54,164,513.52	
17. Cost of foreclosures to community avoided			$ 2,028.00	$ 8,495,515.08	

Outcomes	Inputs - Low	Inputs - High	Calculated Value		Ratio - Low	Ratio - High
Service providers	**$ 809,125.07**	**$ 8,091,250.65**	**$ 567,644,474.14**		**70.16**	**701.55**
18. Landlords - Cost of nonpayment avoided			$ 382,448,031.06			
19. Utility companies - Cost of nonpayment avoided			$ 44,355,757.12			
20. Lenders - Cost of foreclosures avoided			$ 140,840,685.96			

	Inputs - Low	Inputs -high	Calculated Value - Low	Calculated Value - High	Ratio - Low	Ratio - high
TOTALS	$ 553,430,742	$ 557,623,720	$ 3,442,391,769	$ 4,351,247,011	6.22	7.80

The data for this analysis was provided by the State of Ohio Department of Development, Office of Community Assistance and was the most comprehensive data available at the time of analysis. Due to reporting lags and different reporting practices among community action agencies, the data do not include 100 percent of CAA-HRG, CRFESP, and CDBG-CV funds distributed by community action agencies during the pandemic. The data represent roughly 80 percent of the funds distributed and beneficiaries impacted. Because SROIs are calculated as a ratio, increasing the number of dollars invested or people served is unlikely to cause a meaningful change in the SROI ratio. Increasing the amount of dollars invested and the numbers served once all final data are available would increase the size of outcome values.

Sensitivity Analysis

Research into the fiscal proxies used for this report generated both high and low estimates for several outcomes. In order to assess the relative impact of these different possible estimates, researchers conducted a sensitivity analysis. Using a Monte Carlo simulation, researchers produced 10,000 randomly generated configurations of all high and low estimates included in the SROI model, with results shown below. The total social value ranged from $3.4 billion to $4.9 billion, which was very close to the $3.4 to $9.4 billion estimate produced by the SROI model.

Monte Carlo simulation results

	Total Social Value	SROI Ratio
Median	$ 4,174,128,098.19	$ 8.25
Mean	$ 4,176,658,408.32	$ 8.25
5th percentile	$ 3,667,171,932.74	$ 7.23
95th percentile	$ 4,693,995,629.44	$ 9.26

The histogram and scatterplot below both show that the bulk of the SROI ratios all fall within the range of $7 to $10 per dollar invested. Researchers concluded that the variation in the high and low estimates for proxies did not significantly change the overall story told by the SROI ratio.

Histogram of SROI ratios resulting from Monte Carlo simulation
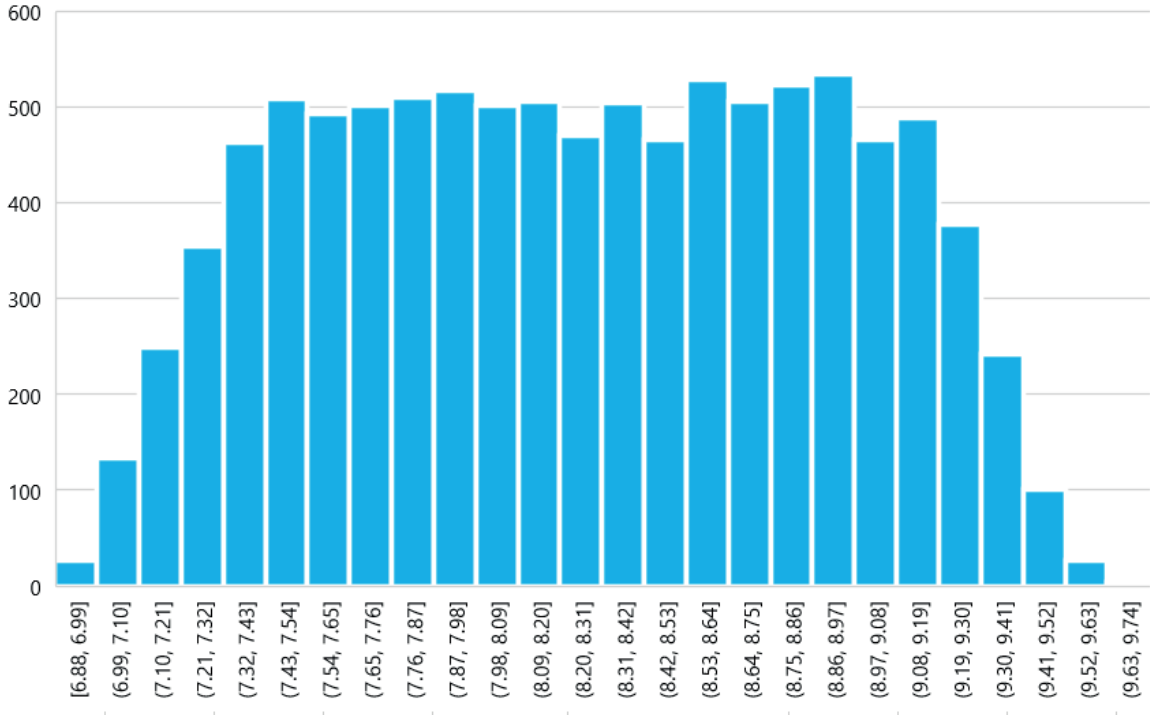
Scatterplot of SROI ratios resulting from Monte Carlo simulation
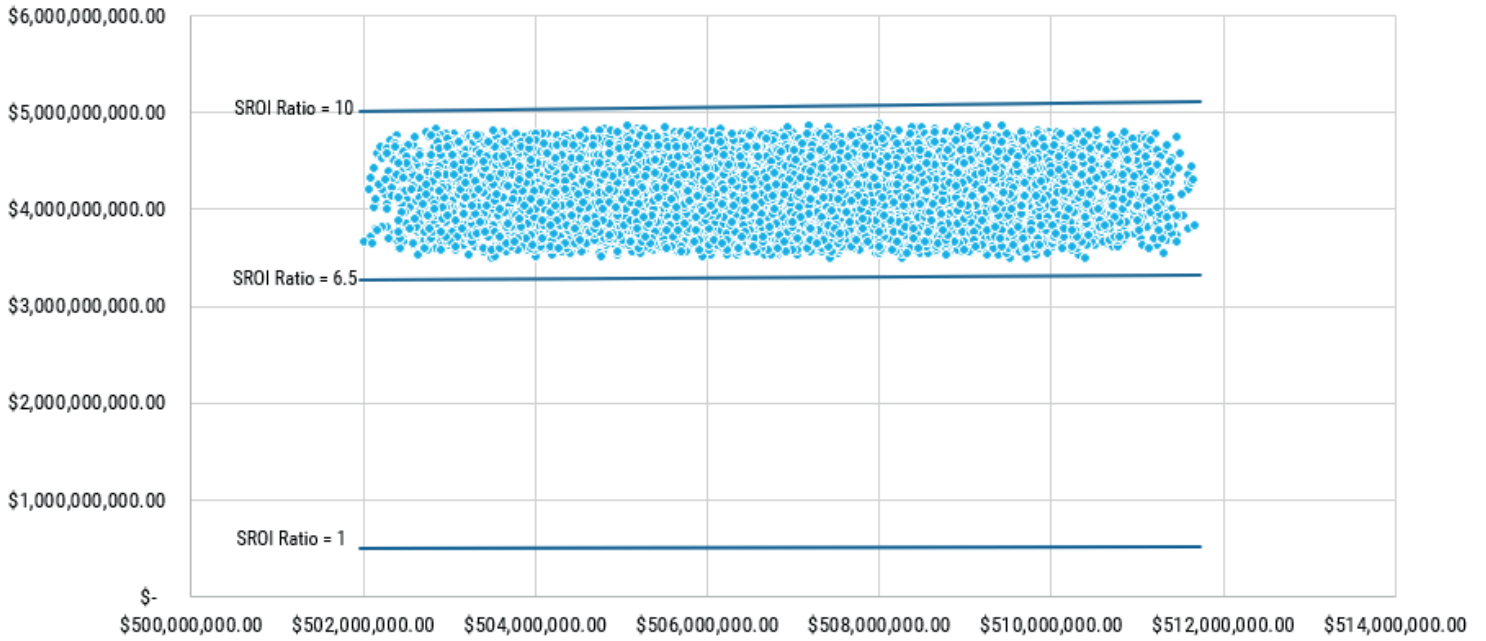
Appendix 4. Detailed Explanation of Proxies

Proxy 1. Staff turnover

Many community action agencies reported that increased staff turnover created a significant challenge during the distribution of Home Relief monies. To capture the value of this turnover, researchers drew on work from the Annie E. Casey Foundation and the American Public Human Services Association, which estimates that the comprehensive cost of one staff member leaving and being replaced can be approximated with 70-200 percent of the staff member's annual salary. [4] This approximation accounts for the direct costs of turnover (such as processing paperwork, paying out remaining vacation or sick pay, advertising for the position, conducting interviews, and training new employees) and indirect costs (including the difference in productivity between new and experienced employees, the increased chance of errors made by new staff, and decreased morale and productivity among other employees). For salary amounts, researchers used the median salary of a Community and Social Service Specialist working in the Community Food and Housing and Emergency and Other Relief Services sector in Ohio. [5]

Because researchers did not have a comprehensive tally of all turnovers, a conservative estimate of one employee per community action agency reporting the negative impact of turnover was taken for the low range of the proxy value. A higher estimate of five employees was made for the high range of the proxy value. This higher estimate was consistent with the data collected via interviews and focus groups. Note that the value for this proxy is entered into the overall SROI calculations as a *negative value*, because this proxy represents a cost to the organization that resulted from the distribution of Home Relief funds.

Discounts:

Attribution: This estimate was then reduced to reflect the percentage of community action agencies that confirmed that they experienced staff turnover *as a result of* their experiences administering Home Relief funds. On survey, 47 percent of community action agencies reported that their agency experienced staff turnover because of Home Relief distribution. This survey result was triangulated against the data collected from community action agencies in focus groups and interviews and found to be a conservative estimate. Researchers reduced the value of the staff turnover proxy by 63 percent, so that the proxy would reflect only those agencies that experienced this outcome.

Deadweight: A final discount was taken to account for the amount of turnover already occurring in the sector. Bureau of Labor and Statistics data indicate that the quit rate for healthcare and social assistance workers in the Midwest in 2022 was 2.6%. This percentage was removed from the proxy calculations.

Duration: The value for the proxy was limited to one year's worth of impact, even though workers distributed funds for longer than one year, in order to avoid overstating the impact.

Drop-off: Not needed because of one year duration.

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[4] National Child Welfare Workforce Institute. (n.d.). *Calculating the cost of employee turnover*. Retrieved from http://ncwwi.org/files/Retention/Calculating_the_cost_of_Employee_Turnover.pdf

[5] BLS State-level Estimates, 2021; American Public Human Services Association (2005). Report from the 2004 Child Welfare Workforce Survey, Microsoft Word - Workforce report 1.doc (theprofessionalmatrix.com)

Proxy Summary: Increased staff turnover expressed as cost of replacing staff member

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
Low: 47 High: 235*	x	$29,463	x	Attribution: 47% Deadweight: (1-2.6%) Duration: 1-year Dropoff: N/A Displacement: N/A	=	Low: $579,370.15 High: $2,896,850.77

*Low = 1 case of staff turnover per CAA; High = 5 cases

Proxy 2. New and Expanded Partnerships

In order to distribute Home Relief funds quickly and efficiently, community action agencies forged new partnerships and expanded existing partnerships in the community. These partnerships raised the profile of the community action agencies in the community and spread the word about the availability of funding. To express the value of these new partnerships in monetary terms, researchers consulted with Jason Summerfield, Principal of Human Service Solutions, which provides communications and marketing services for CAAs and other organizations in the human services sector. Summerfield estimated that the cost of a publicity campaign for a community action agency that would yield partnerships and visibility similar to the resulting impact of the Home Relief funds could potentially range from a few hundred dollars per month for a modest, in-house managed social media campaign covering ads across a relatively small population/area, to several thousand dollars per month for a more comprehensive, professionally managed campaign covering a more expansive area/larger population (potentially tens of thousands for a state-wide campaign involving additional media production and/or advertising methods).

Discounts

Attribution: The proxy was discounted to reflect the percentage of agencies (93%) who confirmed that they had established new partnerships or expanded existing ones because of distributing Home Relief funds. This percentage was assessed against qualitative data collected during the evaluation and determined to be consistent with other findings.

Deadweight: No deadweight discount was taken for this proxy. A publicity campaign takes into account the variety of ways in which people are already receiving information (including word of mouth, which was a big source of publicity for Home Relief funds). The cost of the campaign is assumed to have a built-in deadweight component.

Duration: The proxy value is calculated for one year only, in order to avoid overstating the impact of the partnerships.

Drop-off: The one-year limit on the proxy calculation avoids the need to calculate drop off in subsequent years.

Proxy 2 Summary: New and expanded partnerships expressed as the value of publicity campaigns

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
47	x	Low: $300/month High: $1,000/month	x	Attribution: 93% Deadweight: 0% Duration: 1-year (x12) Dropoff: N/A Displacement: N/A	=	Low: $157,356 High: $524,520

Proxy 3. Expanded staff

In order to distribute large amounts of funding in a compressed time period, many community action agencies had to expand their staff. To approximate the cost of hiring new staff, researchers used the median cost to recruit and hire a new employee (e.g., the costs of recruiting, background and eligibility checks, and office staff fees), which is $1,633 per the Society for Human Resource Management [6] and the average cost of training a new employee (e.g., the costs of days spent in human resource training on company benefits and protocols but not including lost productivity), which is $1,252 per the Association for Talent Development. [7] Researchers did not have data indicating the total number of new staff hired. Researchers instead used the average number of hired employees reported by CAAs on survey, which was very consistent with focus group and case study data.

Note that this proxy is distinct from the staff turnover proxy because it only accounts for those positions that were created to distribute the funds. It does not account for those staff members who were hired to replace departing staff members. Note also that the value for this proxy is entered into the overall SROI calculations as a *negative value*, because this proxy represents a cost to the organization that resulted from the distribution of Home Relief funds.

Discounts:

Attribution: The proxy was discounted to reflect the percentage of agencies who confirmed that they had hired new staff in order to distribute Home Relief funds (93 percent). This percentage was assessed against interview and focus group data and found to be consistent with other findings.

Deadweight: Because the survey question asked whether staff were hired *as a result of the need to distribute Home Relief funds*, the deadweight was already built into the measure.

Drop-off: No drop-off calculation is needed because the outputs being valued are one-time hires.

Duration: No duration discount is needed because the proxy represents one-time hires.

Proxy Summary: Expanded staff expressed as the cost of recruiting and training new staff

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
235*	x	$1,633	x	Attribution: 93% Deadweight: 0% Duration: 1 year Dropoff: N/A Displacement: N/A	=	$630,516.75

* 5 hires per agency

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[6]Society for Human Resource Management. "2017 talent acquisition benchmarking report." *SHRM*. 2017. https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/documents/2017-talent-acquisition-benchmarking.pdf

[7] Association for Talent Development. State of the industry. (December 2016) Retrieved from https://www.td.org/research-reports/2016-state-of-the-industry

Proxy 4. Secondary trauma (for CAAs)

Front line workers interacting with clients during the COVID pandemic experienced dual exposure to the stressors of the pandemic. They witnessed the traumatic experiences of their clients while at the same time experiencing the traumatic effects of COVID and COVID mitigation efforts in their own lives. Half of surveyed community action agencies reported that their staff experienced secondary trauma *as a result of* their work distributing COVID relief funds. Research connects secondary trauma to negative health choices among those experiencing the secondary trauma. These choices can include increased alcohol and tobacco use. [8] Bourke and Craun find that in the United States, for every one unit increase in secondary traumatic stress, there is a corresponding 0.29 unit increase in tobacco use (F (16, 593) = 37.85, p<.001; Adjusted R^2 =.52). The financial value attached to increased tobacco use (-$134,114.12 to -$670,570.61) is drawn from a study of the costs of smoking in each state. [9]

Researchers chose a benefits transfer model to value the cost of secondary trauma as the cost of tobacco used associated with secondary trauma. This does not mean that researchers assume that people who experience secondary trauma all begin using tobacco. The cost of tobacco use is a stand-in for the negative health behaviors that are associated with secondary trauma.

Because CAAs were not able to specify the specific number of staff members who experienced secondary trauma as a result of their work distributing housing-related COVID relief funds, researchers used a conservative estimate of one to five staff members per community action agency, or 47 to 235 people. The qualitative data collected during the evaluation suggests that this is an underestimation of the true number.

Note that the value for this proxy is entered into the overall SROI calculations as a *negative value*, because this proxy represents a cost to the organization that resulted from the distribution of Home Relief funds.

Discounts

Drop-off: Drop-off is artificially set at 100 percent after 1-year

Duration: The impact is calculated for 1-year only

Deadweight: Twenty-nine percent of the tobacco use increase is attributed to secondary trauma, in keeping with Bourke and Craun's estimate of a 0.29 unit increase in tobacco use with one-unit increase in secondary trauma.

Attribution: Fifty percent of surveyed community action agencies report that their staff incurred secondary trauma because of their work distributing home relief funding. The impact is accordingly reduced by 50 percent. Qualitative data collected through focus groups and case studies strongly

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[8] Armes, S. E., Lee, J. J., Bride, B. E., & Seponski, D. M. (2020). Secondary trauma and impairment in clinical social workers. *Child Abuse & Neglect, 110*, 104540. Rauvola, R. S., Vega, D. M., & Lavigne, K. N. (2019). Compassion fatigue, secondary traumatic stress, and vicarious traumatization: A qualitative review and research agenda. *Occupational Health Science, 3*, 297–336; Bourke, M. L., & Craun, S. W. (2014). Secondary traumatic stress among internet crimes against children task force personnel: Impact, risk factors, and coping strategies. *Sexual Abuse, 26*(6), 586–609; Bourke, M. L., & Craun. S. W. (2014). Coping with secondary traumatic stress: Differences between UK and US child exploitation personnel. *Traumatology: An International Journal, 20*(1), 57.

[9] McCann, A. (2020, January 15).The real cost of smoking by state featuring Dr. Fridberg. *University of Chicago Department of Psychiatry and Behavioral Neuroscience News* Retrieved from https://psychiatry.uchicago.edu/news/real-cost-smoking-state

suggest that these numbers underestimate the extent of secondary trauma incurred by community action agency staff.

Proxy summary: Value of secondary trauma incurred by case workers as expressed by 1-year financial opportunity cost of tobacco use

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
Low = 47 High = 235*	-$19,679.25	Attribution: 50% Deadweight(1-29%) Duration: 1 year Dropoff: 100%	Low: -$134,114.12 High: -$670.570.61

*Low = 1 staff member per agency; High = 5 staff members per agency

Proxy 5. Reduced anxiety (for recipients of assistance)

CAAs and beneficiaries alike reported that receipt of Home Relief funding eased recipients' anxiety and stress. Existing research substantiates the connection between a person's financial situation and mental health.[10] Initial studies of the relationship between finances and mental health during the pandemic have further corroborated this connection. Haliwa et al's longitudinal assessment of three national samples found that "financial concern and COVID-19 affecting daily life emerged as the most consistent predictors of anxiety, stress, and depression during the pandemic, controlling for pre-pandemic mental health."[11]

Researchers calculated the costs avoided by reducing stress by using the annual median cost of medical care for those with Generalized Anxiety Disorder (GAD) above those without the condition ($937).[12]

Discounts:
Attribution: Fifty-five percent of surveyed beneficiaries reported that without the assistance, "I would have had a lot more stress."

Deadweight: None needed; deadweight is built into survey question, and $937 outcome valuation includes deadweight

Drop-off: This impact was calculated for one year only.

Duration: Duration is set at one-year.

Proxy summary: Value of reduced anxiety expressed as increased cost of healthcare for individuals with GAD

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
Low: 40,256 High: 80,512*	$937	Attribution: 55% Deadweight: 0% Duration: 1 year Dropoff: 100%	Low: $12,978,653.56 High: $25,957,307.12

* Low=1 person per household receiving CAA-HRG assistance; High = 2 persons per household

[10] See, for example: Fiksenbaum, L., Marjanovic, Z., Greenglass, E., & Garcia-Santos, F. (2017). Impact of economic hardship and financial threat on suicide ideation and confusion. *Journal of Psychology,* 151, 477-495.

[11] Haliwa, I., Wilson, J., Lee, J., & Shook, N. J. (2021). Predictors of change in mental health during the COVID-19 pandemic. *Journal of Affective Disorders*, *291*, 331–337.

[12] Revicki, D. A., Travers, K., Wyrwich, K. W., Svedsäter, H., Locklear, J., Mattera, M. S., Sheehan, D. V., & Montgomery, S. (2012). Humanistic and economic burden of generalized anxiety disorder in North America and Europe. *Journal of Affective Disorders, 140*(2), 103–112.

Proxy 6a. Stabilization-child food insecurity avoided

Forty-two percent of surveyed beneficiaries reported that without the assistance, they would not have had enough money for food. Food insecurity is associated with a host of negative outcomes for children. For example, Thomas et al find that the effect size of the relationship between food insecurity and childhood asthma is 19.1.[13] The annual cost of asthma treatments is $3,076, per Perry et al.[14] Researchers used these data to build a costs-avoided model for children to express the value of avoiding child food insecurity in terms of the value of increased medical costs associated with food insecurity in children.

Discounts

Attribution: Forty-two percent of respondents indicated that they avoided food insecurity

Deadweight: 0.191 percent greater likelihood of a child with food insecurity having asthma, compared to a child not experiencing food insecurity.

Drop-off: Benefit calculation limited to one year

Duration: Reduced to .9 to apply to grant period only (the average duration of CAA-HRG assistance in Ohio is 11 months)[15]

Proxy summary: Value of avoiding child food insecurity expressed as cost of childhood asthma

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted Outcome
35,368*	$3076	Attribution: 42% Deadweight: .19% Duration: 1 year Dropoff: 100%	$2,185,822.92

* Number of individuals under 18 who received CAA-HRG assistance

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[13] Thomas, M., Miller, D. P., & Morrissey, T. W. (2019). Food insecurity and child health. *Pediatrics, 144*(4),

[14] Perry, R., Braileanu, G., Palmer, T., & Stevens, P. (2019, July).The economic burden of pediatric asthma in the United States: literature review of current evidence. *Pharmacoeconomics*, 37(2), 155–167.

[15] U.S. Department of the Treasury. "ERA 1 and 2 Quarterly Demographic Data for Q1 2021 through Q3 2022, "https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program

Proxy 6b. Stabilization-adult food insecurity avoided

To find the value of food insecurity outcomes for the 42% of adult beneficiaries reporting that the assistance enabled them to have enough money for food, researchers used Feeding America estimate that food insecure adults incur $1,848 more in healthcare costs per year compared to adults not experiencing food insecurity. [16]

Discounts

Attribution: Forty-two percent of respondents indicated that they avoided food insecurity

Deadweight: None needed; deadweight is built into survey question and into estimate of healthcare costs

Duration: 0.92 to reflect the average length of assistance from CAA-HRG funds (11 months)

Drop-off: 100% after grant period

Proxy summary: Value of decreased adult food insecurity as expressed by reduced associated medical costs

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted Outcome
Low: 40,256 High: 80,512*	$1,848	Attribution: 42% Deadweight: 0% Duration: 0.92 Dropoff: 100%	Low: $28,745,489.20 High: $57,490,978.41

* Low = 1 person per household receiving CAA-HRG assistance; High = 2 people per household

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[16] Feeding America Research. (2019, July). *The healthcare costs of food insecurity*. Retrieved from https://www.feedingamerica.org/sites/default/files/2019-07/The%20Healthcare%20Costs%20of%20Food%20Insecurity%20Brief_July%202019.pdf; Berkowitz, S. A., Basu, S., Gundersen, C., & Seligman, H. K. (2019). Peer reviewed: State-level and county-level estimates of health care costs associated with food insecurity. *Preventing Chronic Disease*, 16.

Proxy 7. Stabilization-delays in medical care avoided

Research demonstrates that having cash on hand reduces the extent to which individuals with low income defer needed medical care. Survey data from assistance recipients corroborate this. Gallagher and Sabat estimate that for every $100 in increased cash flow, individuals experience an 8.3 percent decrease in delays seeking medical care.[17] A total of 40,256 households received CAAHRG rental assistance, and the average assistance amount per household was $9,160, which is the equivalent of 91.6 times the $100 increase used in the Gallagher and Sabat study. Gao et al estimate that postponed medical care generates an additional $3,976 in medical costs per year.[18]

Discounts
Attribution: N/A

Deadweight: 91.7% (only 8.3% of change is associated with $100 cash)

Duration: 0.92 to reflect the average length of assistance from CAA-HRG funds (11 months)

Drop-off: 100% after grant period

Proxy summary: Avoided delays in medical care expressed as healthcare savings

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
Low: 40,256 High: 80,512*	$3,976 x 91.6**	Attribution: N/A Deadweight: (1-.083%) Duration: 0.92 Dropoff: 100%	Low: $1,119,536,838.19 High: $2,239,073,676.38

* Low = 1 person per household receiving CAA-HRG assistance; High = 2 people per household
** 91.6 = the average amount of assistance received through CAA-HRG ($9,160) divided by the amount of cash on hand that produces the outcome ($100)

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[17] Gallagher, E. & Sabat, J. (2017, September 11). Cash on hand is critical for avoiding hardship. *In the Balance*, Issue 18. *Federal Reserve Bank of St. Louis*. Retrieved from www.stlouisfed. org/publications/in-the-balance/issue18-2017/cash-on-hand-is-critical-foravoiding-hardship

[18] Gao, J., Moran, E., Grimm, R., Toporek, A., & Ruser, C. (2022). The effect of primary care visits on total patient care cost: Evidence from the Veterans Health Administration. Journal of Primary Care &Amp; Community Health, 13, 215013192211417. https://doi.org/10.1177/21501319221141792

Proxy 8. Stabilization-bill delinquency avoided

Survey analysis for this evaluation revealed that Home Relief funding made it possible for many people to keep up with their other bills and avoid bill delinquency. Gallagher and Sabat estimate that increased cash on hand reduces bill delinquency. Specifically, for every $100 increase in cash on hand, households experience a 63 percent reduction in bill delinquency. Bill delinquency can cost up to $550 a year because of changes to credit score, late fees, and bank overdrafts.[19] Researchers used a benefit transfer model to assign a value to the avoided bill delinquency.

Discounts

Attribution: N/A

Deadweight: 37% (63% of change is associated with $100 cash)

Duration: 0.92 to reflect the average length of assistance from CAA-HRG funds (11 months)

Drop-off: 100% after grant period

Proxy Summary: Avoided bill delinquency expressed as associated fees

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
4,0256*	$550 x 91.6**	Attribution: N/A Deadweight: (1-63%) Duration: 0.92 Dropoff: 100%	$1,175,485,183.49

* Number of households receiving CAA-HRG rental assistance

** 91.6 = the average amount of assistance received through CAA-HRG ($9,160) divided by the amount of cash on hand that produces the outcome ($100)

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[19] The hidden costs of bill pay. (2020, July). *doxoINSIGHTS*. Retrieved from https://fm.cnbc.com/applications/cnbc.com/resources/editorialfiles/2020/07/13/doxoINSIGHTS%20Hidden%20Costs%20of%20Bill%20Pay%20Report.pdf

Proxy 9. Positive interaction with children

Forty-two percent of surveyed beneficiaries reported that without the assistance, "I would not have had time to spend playing, reading, or hanging out with my kids." To develop a proxy for parent's/guardians' increased ability to have positive interaction with their children, researchers drew on the University of Washington's data for Parent-Child Interaction Therapy (PCIT). PCIT is an evidence-based treatment that uses supervised play sessions to support positive relationships between parents and children. The Washington State Institute for Public Policy's (WSIPP) Benefit-Cost database contains estimates of the benefits of PCIT to participants and taxpayers. WSIPP calculates that PCIT participants receive $13,754 of benefit from the full dose (15 sessions on average) of PCIT. [20]

Discounts

Attribution: 42% of beneficiaries report they would not have been able to spend time with children without funds.

Deadweight: None needed; deadweight is built into survey question

Duration: .8 to account for period of time receiving assistance (the average duration of CAA-HRG assistance is 11 months)

Drop-off: 100% after 11 months

Proxy Summary: Positive parent/guardian-child interaction as expressed as benefit of PCIT

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
35,425*	$13,754	Attribution: 42% Deadweight: 0% Duration: 0.8 Dropoff: 100%	$163,711,111.20

* Number of individuals under 18 whose household received CAA-HRG assistance

[20] Washington State Institute for Public Policy, Benefit-Cost, Parent-Child Interaction Therapy, https://www.wsipp.wa.gov/BenefitCost?SearchQueries%5B0%5D.paramType=KEYWORD_ANY&SearchQueries%5B0%5D.paramJoin=AND&SearchQueries%5B0%5D.paramTermsIn=TERMS_IN_BC_TITLE&SearchQueries%5B0%5D.valueString=PCIT&researchArea=-1

Proxy 10. Decreased residential mobility – educational impacts

Thirty-three percent of surveyed beneficiaries with children reported that, without the assistance, their children would have had to change schools. Metzger et. al. use logistical regression analysis of National Longitudinal Study of Adolescent Health data to determine that "the experience of moving during adolescence is associated with decreased odds of graduating from high school, even for adolescents moving to less poor neighborhoods.[21] Metzger et. al.'s findings, which hold even when children move only once, are consistent with prior literature that identifies mobility as a negative predictor of educational outcomes.[22]

Metzger et. al.'s analysis uses a variety of models to control for a large number of possible contributing factors and alternate explanations, including age, sex, race, ethnicity, immigrant status, history of school suspension, peers' use of substances, parent's marital history, divorce or other family change, number of siblings, receipt of public assistance and/or housing subsidy, urbanicity (whether the youth lived in urban, suburban, or rural areas), youth vocabulary scores, neighborhood characteristics (including drug use/dealing), median income, unemployment rate, poverty rate, and the percentage of residents without high school diplomas or equivalents. The lowest degree of association found in any of the analyzed models is 39 percent (AOR=.61, p<.01), so this study takes this most conservative value and reduces the calculated impact by 61 percent, resulting in only 39 percent of the change being attributed to residential mobility. To attach a fiscal value to this difference in likelihood, researchers used the difference in median annual earnings between individuals in Ohio who have a high school diploma and those who do not, which is $8,801.[23]

Discounts

Attribution: Thirty-three percent of surveyed beneficiaries reported that their children would have had to change schools if they had not received the funding. This number is likely smaller than the actual number of those who would have experienced residential mobility.

Deadweight: 61%

Drop-off: Only one year of earnings is included in this proxy, despite the fact that there will be longer-term differences between wage earners with different education credentials. This allows for the fact that other factors may increasingly impact individuals' wage increases over the years.

Duration: As indicated above, an artificially short timeframe of one year is used for the SROI calculation, in order to avoid overestimating the length of time in which a high school degree impacts median salaries.

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[21] Metzger, M. W., Fowler, P. J., Anderson, C. L., & Lindsay, C. A. (2015). Residential mobility during adolescence: Do even "upward" moves predict dropout risk?. *Social Science Research*, *53*, 218–230.

[22] Aaronson, D. (1998). Using sibling data to estimate the impact of neighborhoods on children's educational outcomes. *Journal of Human Resources*, 915–946; Ainsworth, J. W. (2002). Why does it take a village? The mediation of neighborhood effects on educational achievement. *Social Forces*, *81*(1), 117–152; Hagan, J., MacMillan, R., & Wheaton, B. (1996). New kid in town: Social capital and the life course effects of family migration on children. *American Sociological Review*, 368–385; Elder Jr., G. H. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly*, 4–15.

[23] Data Ohio. *Earnings and Educational Attainment by County.* Retrieved from https://data.ohio.gov/wps/portal/gov/data/view/earnings-and-educational-attainment-by-county

Proxy Summary: Reduced residential mobility expressed as impact on educational attainment

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
35,425*	x	$8,801	x	Attribution: 33% Deadweight: (1-61%) Duration: 1-year Dropoff: N/A	=	$ 40,125,497.20

* Number of individuals under 18 whose household received CAA-HRG assistance

Proxy 11. Maintained access to childcare

The pandemic has brought to light the shortage of childcare providers and the important role that they play in supporting working and schooling parents/guardians. Thirty-one percent of surveyed beneficiaries reported that, without the assistance, they would have "moved somewhere that made it harder to get someone to watch my children." A recent study by Bishop calculates the costs to parents of inadequate access to childcare to be $5,520 per year in lost earnings.[24]

Discounts:

Attribution: Thirty-one percent of beneficiaries report that without funds, they would have had a hard time finding childcare

Deadweight: 95.1% (0.049% of people living in poverty are in the labor force)[25]

Duration: 1-year

Drop-off: 100% after one year

Proxy summary: Reduced access to childcare expressed as lost earnings

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
Low: 17,417 High: 34,834*	x	$5,520	x	Attribution: 31% Deadweight: (1-.951) Duration: 1-year Dropoff: 100%	=	Low: $ 1,460,394.55 High: $2,920,789.10

* Low = 1 person per household with children (18 and under) receiving CAA-HRG rental assistance; High = 2 people per household

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[24] Bishop, S. (2023). *$122 billion: The growing, annual cost of the infant-toddler child care crisis*. Retrieved from strongnation.s3.amazonaws.com

[25] U.S. Bureau of Labor Statistics. (2022, September). A profile of the working poor, 2020. *BLS Reports*. Retrieved from https://www.bls.gov/opub/reports/working-poor/2020/home.htm

Proxy 12. Avoided costs of homeless shelter utilization & COVID mitigation

As concerns grew about the potential for COVID to spread in congregate settings, policy analysts calculated the cost of COVID mitigation efforts needed to reduce the spread of COVID in homeless shelters. In Ohio, the per person cost of mitigation efforts to reduce the spread of COVID attributable to a three-month shelter stay (not including the costs of quarantine beds) is $4,499.57. Sixty percent of surveyed beneficiaries reported that they would have been homeless without the assistance, which could have significantly increased the need for emergency shelter and therefore the need to increase expenditures for COVID mitigation for increased use of shelters.

Discounts:

Attribution: Sixty percent of surveyed beneficiaries report that without funds, they would have been homeless

Deadweight: None needed; deadweight is built into survey question

Duration: 3-months (average length of stay in shelter)

Drop-off: 100% after one shelter stay

Proxy summary: Homelessness prevention expressed as avoided cost of homeless shelter utilization & associated COVID mitigation measures

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
Low: 40,302 High: 80,604*	x	$4,499.57	x	Attribution: 60% Deadweight: 0% Duration: 3-months Dropoff: 100%	=	Low: $ 108,805,002.08 High: $217,610,004.17

* Low = 1 person per household receiving CAA-HRG rental assistance; High = 2 people per household

Proxy 13. Avoided cost of foster care system utilization

Eighteen percent of surveyed beneficiaries who were parents reported that without Home Relief assistance, they would have lost custody of their children. Researchers used low and high estimates of per diem foster care payments for each child welfare jurisdiction in Ohio to calculate a median low estimate ($23) and median high estimate ($108.32) for the entire State of Ohio.[26] This estimate does not include the other costs associated with foster care.

Discounts

Attribution: 18% of beneficiaries report that without assistance, they would have lost custody of their children.

Deadweight: None needed; deadweight is built into survey question

Duration: 1-year

Drop-off: 100%

Proxy Summary: Retained custody of children expressed as avoided cost of foster care system utilization

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted Outcome
35,425*	x	$23-$108.32	x	Attribution: 18% Deadweight: 0% Duration: 12-months Dropoff: 100%	=	Low: $53,530,717.50 High: $252,106,405.20

* Number of individuals under 18 whose household received CAA-HRG assistance

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[26] Petrik, W. (2020). *Support Ohio children by funding kinship care*. Retrieved from policymattersohio.org

Proxy 14. Avoided cost of insufficient childcare

A recent study calculated the annual cost to taxpayers of insufficient access to childcare (Proxy 11 uses this study's estimate of the cost to parents/guardians). According to Bishop, taxpayers lose an average of $1,470 per working parent per year in lower income tax and sales tax revenue. [27] As indicated in Proxy 11, thirty-one percent of surveyed beneficiaries with children reported that without Home Relief assistance, they "would have moved somewhere that made it harder to get someone to watch my children."

Discounts

Attribution: 31% of beneficiaries report that without funds, they would have had a hard time finding childcare

Deadweight: None needed; deadweight is built into survey question

Duration: 11 months (average number of months of receipt of CAAHRG rental assistance)

Dropoff: 100%

Proxy summary: Avoided decrease in childcare access expressed as cost to taxpayers of insufficient access to childcare

Number experiencing the outcome		Outcome experienced		Discounts		Adjusted outcome
Low: 17,417 High: 34,834	x	$1,470	x	Attribution: 31% Deadweight: 0% Duration: 11-months Dropoff: 100%	=	Low: $388,909.42 High: $777,818.84

* Low = 1 person per household with children (18 and under) receiving CAA-HRG rental assistance; High = 2 people per household

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[27] Bishop (2023)

Proxy 15. Benefits attained because of improved parent child interaction

Forty-two percent of surveyed beneficiaries reported that without the assistance, "I would not have had time to spend playing, reading, or hanging out with my kids." The Washington State Institute for Public Policy's (WSIPP) Benefit-Cost database contains estimates of the benefits of PCIT to participants and taxpayers. WSIPP calculates that taxpayers receive $9,662 of benefit from the full dose (15 sessions on average) of PCIT.[28]

Discounts

Attribution: 42%

Deadweight: None needed; deadweight is built into survey question

Duration: .8 to account for period of time receiving assistance

Drop-off: 100%

Proxy Summary: Positive parent/guardian-child interaction as expressed as benefit to taxpayers of PCIT

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
35,368*	$9,662.00	Attribution: 42% Deadweight: 0% Duration: 0.8 Dropoff: 100%	$114,819,806.98

* Number of individuals under 18 whose household received CAAHRG rental assistance

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[28] Washington State Institute for Public Policy. (2019, December). *Benefit-cost, parent-child interaction therapy*. Retrieved from https://www.wsipp.wa.gov/BenefitCost?SearchQueries%5B0%5D.paramType=KEYWORD_ANY&SearchQueries%5B0%5D.paramJoin= AND&SearchQueries%5B0%5D.paramTermsIn=TERMS_IN_BC_TITLE&SearchQueries%5B0%5D.valueString=PCIT&researchArea=-1

Proxy 16. Avoided costs of foreclosures to local governments

The mortgage relief provided by Home Relief funds impacted not just the homeowners who avoided foreclosure, but local governments as well. The 2007 Congressional Joint Economic Committee reported that each foreclosure costs local governments $19,229 ($26,708.32 in 20222 dollars) in lost tax revenues. [29] Researchers used this amount to represent the value to local governments of avoided foreclosures.

Discounts

Deadweight: 0%

Duration: 1-time event

Drop-off: 100%

Proxy Summary: Foreclosure prevention expressed as avoided costs to local governments

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
2,028*	$26,708.34	Attribution: 100% Deadweight: 0% Duration: 1-time Dropoff: 100%	$54,164,513.52

* Number of households received CDBG-CARES mortgage assistance

[29] Joint Economic Committee. (2007, June 22*). Sheltering neighborhoods from the subprime foreclosure storm.* (Special Report). Washington, D.C. Retrieved from https://www.jec.senate.gov/public/index.cfm/democrats/2007/6/report-update-sheltering-neighborhoods-from-the-subprime-foreclosure-storm_1095

Proxy 17. Avoided cost of foreclosures to community

Foreclosures also impact neighboring homeowners by reducing property values of nearby homes. On average, the Congressional Joint Economic Committee of 2007 calculated that foreclosures cause property value decreases of $3,016 per foreclosure ($4,189.11 in 2022 dollars).

Discounts
Attribution: 100%

Deadweight: 0%

Duration: 1-time event

Drop-off: 100%

Proxy Summary: Foreclosure prevention expressed as reduction in neighboring property values

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
2,028*	$4,189.11	Attribution: 100% Deadweight: 0% Duration: 1-time Dropoff: 100%	$8,496,515.08

* Number of households received CDBG-CARES mortgage assistance

Proxy 18. Landlords - Cost of nonpayment avoided

Property owners received $382,448,031.06 in rental assistance through CAA-HRG, CRFESP, and CDBG-CV. Relief funds mitigated financial loss to landlords that would have occurred when individuals could not pay their rent due to pandemic-induced circumstances

Proxy 19. Utility companies - Cost of nonpayment avoided

Utility companies received $44,355,757.12 in payments through CAA-HRG, CRFESP, and CDBG-CV. Relief funds mitigated financial loss to utility companies that would have occurred when individuals could not pay their utility bills due to pandemic-induced circumstances.

Proxy 20. Lenders - Cost of foreclosures avoided

Kingsley et al estimate that for every foreclosure, regardless of the remaining mortgage amount, lenders pay roughly $50,000 in processing fees and expenses.[30] Researchers used the number of households receiving mortgage assistance to calculate the total impact on lenders.

Discounts
Attribution: 100%

Deadweight: 0%

Duration: 1-time event

Drop-off: 100%

Proxy Summary: Foreclosure prevention expressed as avoided processing costs paid by lenders

Number experiencing the outcome	Outcome experienced	Discounts	Adjusted outcome
2,028	$50,000	Attribution: 100% Deadweight: 0% Duration: 1-time Dropoff: 100%	$140,840,685.96

*Number of households receiving mortgage assistance

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[30] Kingsley, G. T., Smith, R., & and Price, D. (2009). *The impacts of foreclosures on families and communities*. Washington, DC: Urban Institute.